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| APPLICATION NO.   | FILING DATE           | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO |
|---|-----------------------|----------------------|---------------------------|-----------------|
| 09/674,444  | 10/31/2000            | Symon Reuben Brewer  | 78501 (32-126 USPCT) 9030 |                 |
| 27975   | 27975 7590 05/02/2006 |                      | EXAMINER                  |                 |
| ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A. 1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE P.O. BOX 3791 ORLANDO, FL 32802-3791 |                       |                      | FILE, ERIN M              |                 |
|   |                       |                      | ART UNIT                  | PAPER NUMBER    |
|   |                       |                      | 2611                      |                 |

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|   | Application No.  | Applicant(s)  |  |  |  |  |
|---|--|---|--|--|--|--|
|   | 09/674,444   | BREWER, SYMON REUBEN  |  |  |  |  |
| Office Action Summary   | Examiner   | Art Unit  |  |  |  |  |
|   | Erin M. File   | 2611  |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply  | ears on the cover sheet with the c   | orrespondence address   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period was precised. Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONEI | I.  lely filed  the mailing date of this communication.  D (35 U.S.C. § 133). |  |  |  |  |
| Status  |  | ·   |  |  |  |  |
| 1)⊠ Responsive to communication(s) filed on 13 Fe   | ebruary 2006.  |   |  |  |  |  |
| · · · · · · · · · · · · · · · · · · ·   | action is non-final.   |   |  |  |  |  |
| 3) Since this application is in condition for allowar   | nce except for formal matters, pro   | secution as to the merits is  |  |  |  |  |
| closed in accordance with the practice under E  | x parte Quayle, 1935 C.D. 11, 45   | 3 O.G. 213.   |  |  |  |  |
| Disposition of Claims   |  |   |  |  |  |  |
| 4) ☐ Claim(s) 1-3,5-12 and 15-23 is/are pending in the day of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) 1-3,5-12 and 15-23 is/are rejected.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) are subject to restriction and/or   | vn from consideration.   |   |  |  |  |  |
| Application Papers  |  |   |  |  |  |  |
| 9) The specification is objected to by the Examine  | r.   |   |  |  |  |  |
| 10) The drawing(s) filed on 31 October 2000 is/are:   |  | to by the Examiner.   |  |  |  |  |
| Applicant may not request that any objection to the   | drawing(s) be held in abeyance. See  | 37 CFR 1.85(a).   |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |  |   |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |  |   |  |  |  |  |
| Priority under 35 U.S.C. § 119  |  |   |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents</li> <li>2. Certified copies of the priority documents</li> <li>3. Copies of the certified copies of the priority application from the International Bureau</li> <li>* See the attached detailed Office action for a list</li> </ul>   | s have been received. s have been received in Application ity documents have been receive I (PCT Rule 17.2(a)).  | on No ed in this National Stage   |  |  |  |  |
| Attachment(s)  1)   Notice of References Cited (PTO-892)  | 4) 🔲 Interview Summary   | (PTO-413)   |  |  |  |  |
| Notice of References Cited (PTO-692)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date  | Paper No(s)/Mail Da  |   |  |  |  |  |

#### **DETAILED ACTION**

## Response to Arguments

1. Applicant's arguments with respect to claims 1-3, 5-12, and 15-23 have been considered but are most in view of the new ground(s) of rejection.

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 5-11, 15-17, 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamre (U.S. Patent No. 5,481,563).

Claims 1, 10, 15, Hamre discloses received digital data (abstract, line 3) which has an offset reference clock offset offset by predetermined frequency amount (abstract lines 3-6 refers to a programmable delay element, fig. 3, 36, although Hamre discloses a time offset and not a frequency offset, the frequency offset if the change in time divided by the period, which can be derived from the time delay), the offset reference clock moves

relative to transition point for bits of the digital signal (the recovered clock signal is generated from the data signal, which is equivalent to the offset reference clock moving relative to transition point for bits in the digital signal, col. 2, lines 51-54). Further Hamre meets the limitation of sampling the signal at sampling times determined by an integer multiple of the frequency of offset reference clock signal, as the recovered clock signal is used to establish a first sampling time for sampling the self-clocking data signal, the sampling interval times are a function of the delay value of the clock offset (col. 2, lines 54-60). Hamre discloses where absent jitter and offset detecting and counting the number of times in any bit different from a predetermined number and counting occasions over predetermined time and using this number to derive a measure of jitter through a circuit means arranged to produce an error ratio signal indicative of the number or count of induced error signals within a defined interval, where the error ratio signal is then compared with a predetermined error ratio value with the results of the comparison being used to control the delay value of the programmable delay means whereby the error ratio signal made to substantially correspond to the adjustable reference signal (col. 2 line 61 – col. 3, line 5).

Claims 2, 17, Hamre further discloses offset reference clock signal is formed by extracting a clock signal from said digital signal and offsetting said clock signal by said predetermined frequency (col. 2 lines 51-60).

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Claim 5, 16, 20, Hamre discloses sampling the times are at clock bit intervals being plus and minus one of said integer multiple (col. 2, 56-60).

Claims 6, 15, 19, although Hamre fails to disclose the method of determining a sampling period, using the inverse proportion of the bit rate and higher frequency offset is a design choice and simply represents using the original clock frequency (bit rate) and some offset.

Claims 7, 21, Hamre discloses wherein one of said at least one measure of jitter is obtained by counting up one value for each of said occasions representing sampling times greater than the predetermined number within a bit, counting down one value for each of said occasions representing sampling times less than the predetermined number within a bit and determining the difference between the maximum count value and the minimum count value (col. 2, lines 64-67).

Claims 8, 22, Hamre discloses wherein one of at least one measure of jitter is obtained by counting up one value for each of said occasions representing sampling times greater than the predetermined number within a bit, counting down one value for each of said occasions representing sampling times less than the predetermined number within a bit and determining the time difference between the first occasion of the maximum count value and the last occasion of the minimum count value (col. 2, lines 64-67).

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Claims 9, 23, the further limitation of dividing the time difference by said integer multiple and said predetermined time meets the definition of the frequency offset determination as met in claim 1 above.

Claim 11, Hamre further discloses means for forming the offset reference clock comprises extracting the clock from the digital signal and offsetting the clock signal (col. 2, lines 51-60).

#### Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 3, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamre (U.S. Patent No. 5,481,563) as applied to claims 1, 11, and 17 above, and further in view of Yoshimura (U.S. Patent. No. 6,100,724).
- Claims 3, 12, 18, inherit the limitations of Claims 1, 11, and 17 respectively. Hamre fails to disclose smoothing the reference clock. However, Yoshimura discloses a phase

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comparator (fig. 2, 5) for calculating a phase difference by using sampled values before and after an edge portion of the signals outputted from the A/D converter (fig. 2, 4), a filter (6) for smoothing the phase difference outputted from the phase comparator (fig. 2, 5) so as to output a signal converted into a direct current, a variable frequency oscillator (fig. 2, 7) for reproducing a synchronous clock on the basis of the signal-outputted from the filter (fig. 2, 6), a jitter measuring section (fig. 2, 9) for detecting a jitter detection signal on the basis of unevenness of the phase difference obtained by the phase comparator (fig. 2, 5, col. 3, lines 12-24). Because smoothing the reference clock can result in more accurate phase measurements, resulting in improved jitter measurement, it would be obvious to one skilled in the art at the time of invention to incorporate the clock smoothing of Toshimura into the combined invention of Hamre.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin M. File whose telephone number is (571)272-6040. The examiner can normally be reached on M-F 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin M. File

EMF

5/1/2006

JEAN B. CORRIELUS
PRIMARY EXAMINED

5-1-06